

iSound AB88-UX

USB-C and XLR to Dante® 8x8 Audio Bridge

User Manual V1.0



CONTENT

Safety.....	3
1. Introduction	3
2. Features	3
3. Package Contents	4
4. Specifications	4
5. Operation Controls and Functions	6
5.1 Front Panel.....	6
5.2 Rear Panel.....	7
6. Dante® Web GUI User Guide.....	8
6.1 Login.....	8
6.2 Information	10
6.3 Preset	10
6.4 INput	11
6.5 Output.....	12
6.6 DSP.....	13
6.7 network.....	14
6.8 Ststem	15
6.9 User.....	16
7. API Control Command	16
8. Diagram.....	17
9. Trademarks	17



SAFETY

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended to protect and extend the life of your equipment.

1. INTRODUCTION

The **iSound AB88-UX** USB-C and XLR to Dante® audio bridge is a Dante® transmitter based on DEP technology. It features **6x analog + 2x digital audio inputs**, and **6x analog + 2x digital audio outputs**. It interconverts between **USB-C/XLR** analog audio and **Dante®** digital audio.

The analog input adopts **XLR/TRS** combination port, which supports both balanced and unbalanced audio input. Analog input supports **48V phantom power** supply and 6-level sensitivity adjustment, while analog output supports 5-level output adjustment.

The **USB-C** port is equipped with a built-in sound card and supports **2x2 digital audio** input/ output.

The audio bridge features **built-in DSP** (Digital Signal Processor) for gain, equalizer and delay control. It is simple to configure and operate via the internal **Web GUI** or the standard **Dante® Controller** software. It supports Dante® primary and backup networks and can be backed up through backup networks. This product can be powered by **dual PoE+** (Power over Ethernet) and local **DC power** supply.

This cost-effective **1U rack-mount** unit offers an easy solution for professional AV systems and can be paired with various types of professional audio equipment, while greatly simplifying the wiring of the system.

2. FEATURES

- **6x balanced** analog **XLR inputs**, supporting **XLR/TRS** combo connection.
- **6x balanced** analog **XLR outputs**.
- **2x2** digital **USB-C** inputs/outputs.
- **Dante® 8x8** and **AES67** audio input/output.



- Supports **balanced/unbalanced** analog audio input and output.
- **2x RJ45 Dante® connectors** with **redundancy** and dual **PoE+**, supporting Dante® **primary** and **backup** networks.
- Each input supports **+48V phantom power**.
- Adjustable global 0dBFS line up selection (**6-level input sensitivity** adjustment: -35dBV/-18dBV/0dBV/+4dBu/+14dBu/+24dBu; **5-level output** adjustment: +20dBu/+14dBu/+4dBu/0dBV/-18dBV).
- **Built-in audio DSP** processing for **sensitivity, gain, 8-band PEQ** and **delay** control.
- Audio input and output support **8 band PEQ** adjustment (with +15dB/-15dB gain), and a maximum of **50ms delay** setting.
- Dante® audio supports: **44.1kHz, 48kHz, 88.2kHz, and 96kHz** sampling rates @ 16/24bit.
- Dante® audio delay supports settings of **2, 3, 4, 5, 10ms**.
- USB-C audio output up to **192KHz@24bit**, USB-C audio input up to 96KHz@24bit.
- Configuration using internal **Web GUI** or **Dante® Controller**.
- Powered by **PoE+** or local **DC power** supply.
- Standard **1U 19” rack-mount** form factor.

3. PACKAGE CONTENTS

- 1x iSound AB88-UX audio bridge
- 1x 12V/2.5A Locking Power Supply with Optional Multinational Conversion Plug
- 2x Mounting Ear
- 8x Machine Screw
- 1x User Manual

4. SPECIFICATIONS

Model	iSound AB88-UX
Name	USB-C and XLR to Dante® 8x8 Audio Bridge
Technical	
Network Bandwidth	Dante® Network 1000M
Audio Latency	Configurable Dante® device latency: (Supports 2, 3, 4, 5, 10ms configurable using Dante® Controller)

Audio Format	DANTE [Dante®/AES67 digital audio input/output, PCM 2CH 44.1K-96KHz, 16/24Bit] LINE IN [Analog audio input, Balanced/unbalanced, Max input level 24dBu] MIC IN [Analog audio input, Balanced/unbalanced, Min input level -35dBV] USB IN [Digital audio input, PCM 2CH 44.1K-96KHz 16/24bit] USB OUT [Digital audio output, PCM 2CH 44.1K-192KHz 16/24bit] LINE OUT [Analog audio output, Balanced/unbalanced, Max output level 20dBu, Min output level -18dBV]
Line/Mic Input Audio	
Input Impedance	20K Ohm balanced; 10K Ohm unbalanced
Input Level	Max 24dBu (12.28Vrms) @ balanced line audio; Max 18dBu (6.14Vrms) @ unbalanced line audio; Min -35dBV (17.78mVrms) @ balanced mic audio;
Line Output Audio	
Output Impedance	600 Ohm balanced; 300 Ohm unbalanced
Output Level	Max 20dBu (7.75Vrms) @ balanced audio; Max 14dBu (3.875Vrms) @ unbalanced audio;
Frequency Response	20Hz to 20kHz (-/+0.5dB)
Dynamic Range	≥ 105dB@ +4dBu, 1kHzA-weighted
Audio S/N Ratio	≥ 105dB@ +4dBu, 1kHzA-weighted
Audio THD+N	< 0.01% at +4dBu, 1kHz
Transmission Distance	328ft/100m (CAT6/6A/7)
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
Connection	
6x MIC/LINE INPUTS	XLR/TRS Combo, female; Line analogue audio, Balanced/unbalanced 6CH, Max input level 24dBu; Mic analogue audio, Balanced/unbalanced 6CH, Min input level -35dBV;
6x LINE OUTPUTS	XLR, male; Analogue audio, Balanced/unbalanced 6CH, Max output level 20dBu;
1x USB-C	USB Type C, 2x2 digital audio in/out.
1x DANTE PRIMARY	RJ45 locking connector, PoE+/PD (Class 4 IEEE 802.3at); Dante/AES67 digital audio in/out, PCM 2CH 44.1K-96KHz 16/24Bit, Web GUI and TCP/IP;
1x DANTE SECONDARY	RJ45 locking connector, PoE+/PD (Class 4 IEEE 802.3at); Dante/AES67 digital audio in/out, PCM 2CH 44.1K-96KHz 16/24Bit;
1x DC 12V IN	2-pin DC Locking Power Jack, Max 2.5A.
Mechanical	

Housing	Metal Enclosure
Color	Black
Dimensions	440mm [W]×200mm [D]×44.5mm [H]
Weight	2.285kg
Power Supply	(1) 12V/2.5A 2PIN Locking Power Supply; (2) PoE+/PD (Class 4 IEEE 802.3at)
Power Consumption (Max)	11.52W (Test with 1Hz sine wave)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)
Storage Humidity	10%~90% (relative humidity, non-condensing)

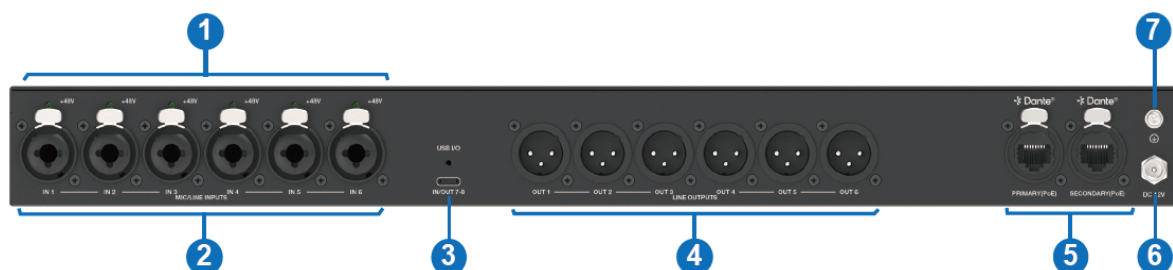
5. OPERATION CONTROLS AND FUNCTIONS

5.1 FRONT PANEL



No.	Name	Function Description
1	POWER LED	Green ON: The system is powered on (PoE+ or DC power supply). Red ON: The system is in standby mode. OFF: The system is powered off.
2	STATUS LED	System status indicator. Green ON: The system is normal. Flash at 2Hz: The system is abnormal.
3	RESET button	Press and hold this button for 5 seconds to restore the product to factory default settings (including network settings), all LEDs on the front panel will flash at 2Hz for 5 seconds.

5.2 REAR PANEL



No.	Name	Function Description
1	48V phantom power indicator lights	8x 48V phantom power indicator lights. When the MIC/LINE IN 1/ 2/3/4/5/6/7/8 port is used as a MIC input port, and the corresponding 48V phantom power is turned on, the corresponding green indicator light is on.
2	MIC/LINE INPUTS ports	LINE analogue audio input port, supporting balanced/unbalanced 6CH, with a Max input level of 24dBu. MIC analogue audio input port, supporting balanced/unbalanced 6CH, with a Min input level of -35dBV. Note: These ports support 48V phantom power. When the phantom power function is turned on through Web GUI or API commands, these ports can supply power to the connected MIC.
3	USB I/O port	USB Type C port, with built-in sound card, supporting 2x2 digital audio input/output.
4	LINE OUTPUTS ports	LINE analogue audio output ports, supporting balanced/unbalanced 6CH, with a Max output level of 20dBu.
5	PRIMARY(PoE) /SECONDARY (PoE) port	Dante® primary/secondary network port, supporting PoE+, with the following two functions: (1) Dante® audio input and output port. (2) Web GUI and TCP/IP control port. Note: The primary and secondary networks of this product are hot backup networks, that is, when the primary network encounters a problem, it will automatically switch to the secondary network.
6	DC 12V	DC 12V/2.5A power input port.
7	GND	Connect the unit housing to the ground.

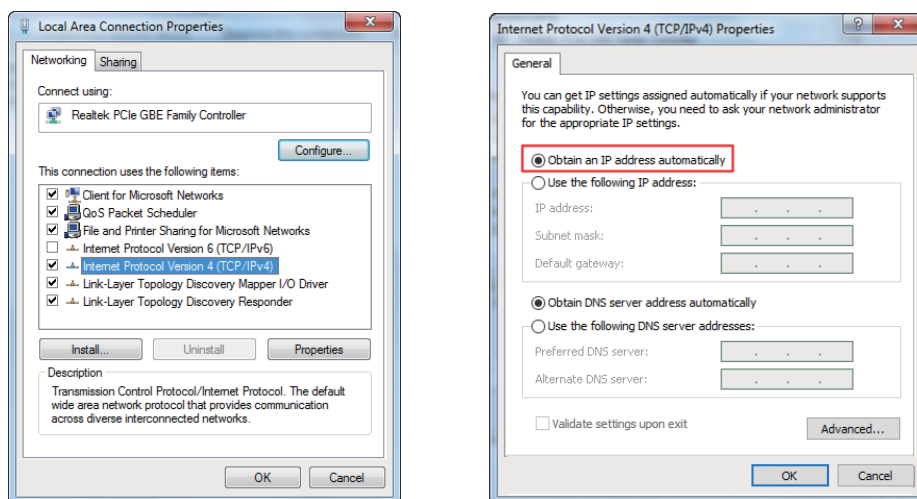
6. DANTE® WEB GUI USER GUIDE

6.1 LOGIN

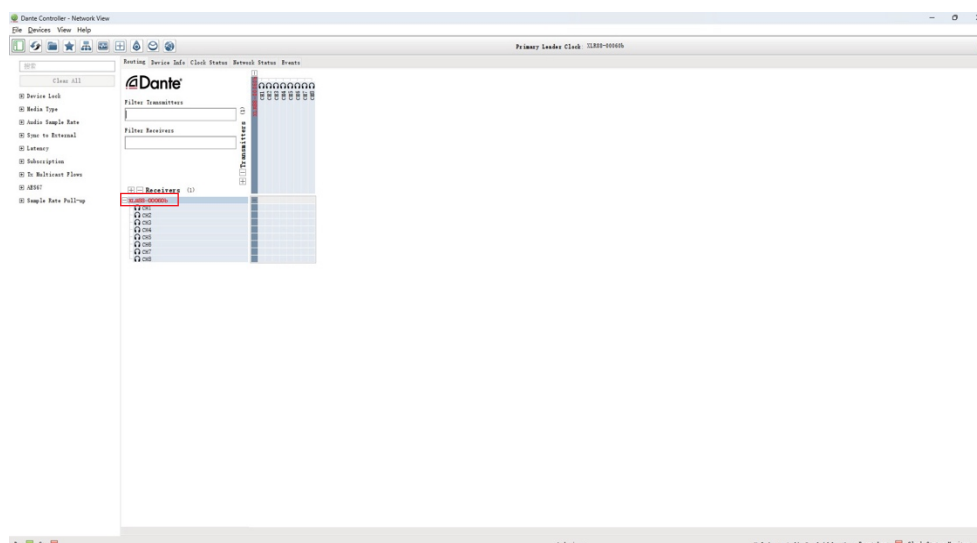
The audio bridge can be controlled by the built-in **Dante® Web GUI**. The operation steps are as following.

Step 1: Connect the Dante® **PRIMARY** (PoE) port of the audio bridge to the Ethernet Switch.

Step 2: Connect the PC to the same Ethernet Switch and set the Network connection setting of PC to be “**Obtain an IP address Automatically**”.



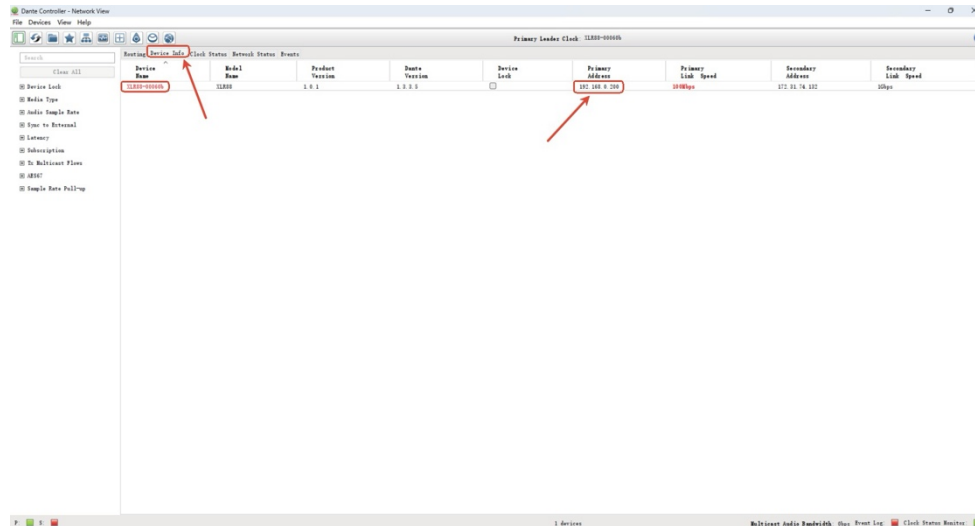
Step 3: Open the **Dante® Controller** software on the PC, and find the Dante® device on the Routing page, as shown in the figure below.



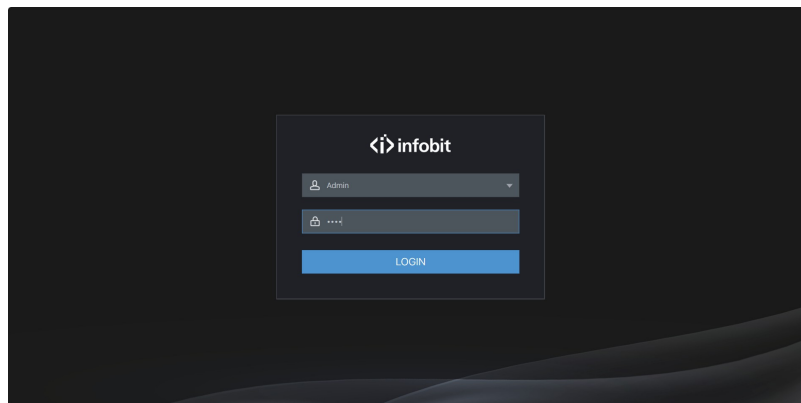


Step 4: Click the Device Info tab to check the IP address of the Dante® device.

Note: The audio bridge is set to DHCP mode by default, and users need to check the device IP address through the Dante® Controller.



Step 5: Input the IP address of Dante® device into your browser on the PC to enter the login interface of the Dante® Web GUI.

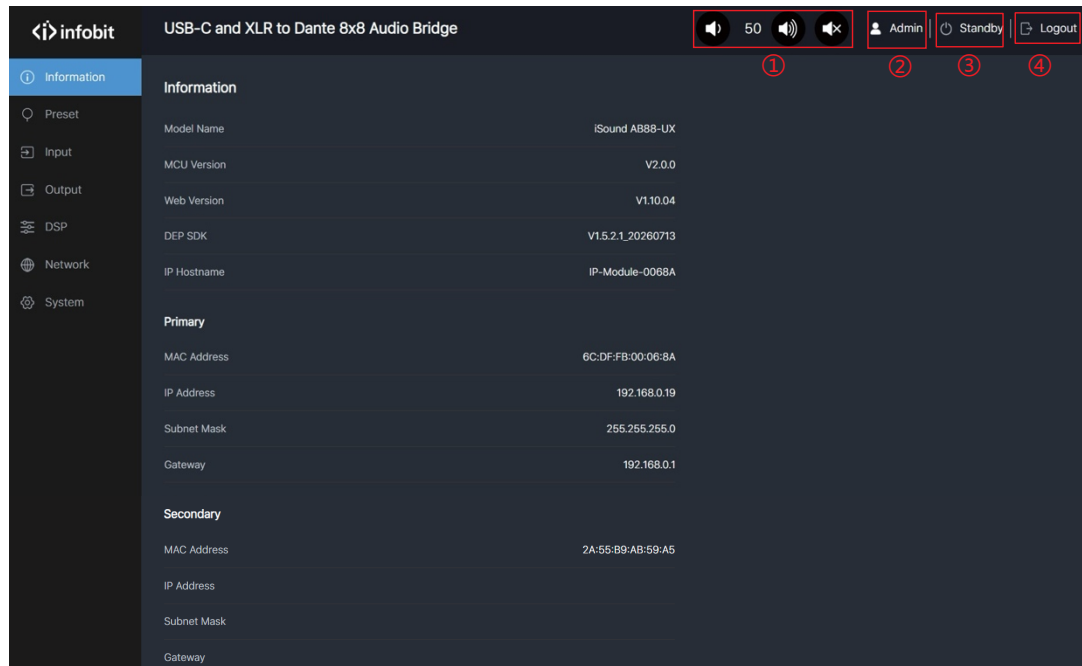


The default usernames and passwords are as below:

Username	Password
Admin	1234
User	1234

Step 6: Select the default username “**Admin**” and input the password “**1234**”, then click the “**LOGIN**” button to enter the Information page of Dante® Web GUI.

6.2 INFORMATION

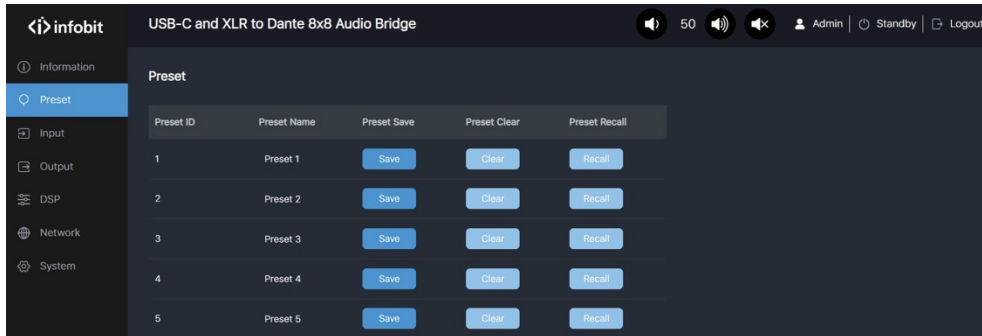


This page provides basic information about the audio bridge, such as Model Name, MCU Version, Web Version, DEP SDK, IP Hostname, Network configuration information of the primary network and secondary network.

Besides, you can do the following operations in the upper right corner of each page.

- ① Display and set the audio volume of Master Out. Click the volume icons to increase/ decrease the audio volume of Master Out, or click the mute icon to mute/unmute the audio of Master Out. When muted, the mute icon displays red.
- ② Display the current username (User or Admin).
- ③ Click the power icon to power on the audio bridge or set it in standby mode.
- ④ Click the logout icon to logout and return to the login interface.

6.3 PRESET



Up to 5 preset scenes can be set on the Preset page.

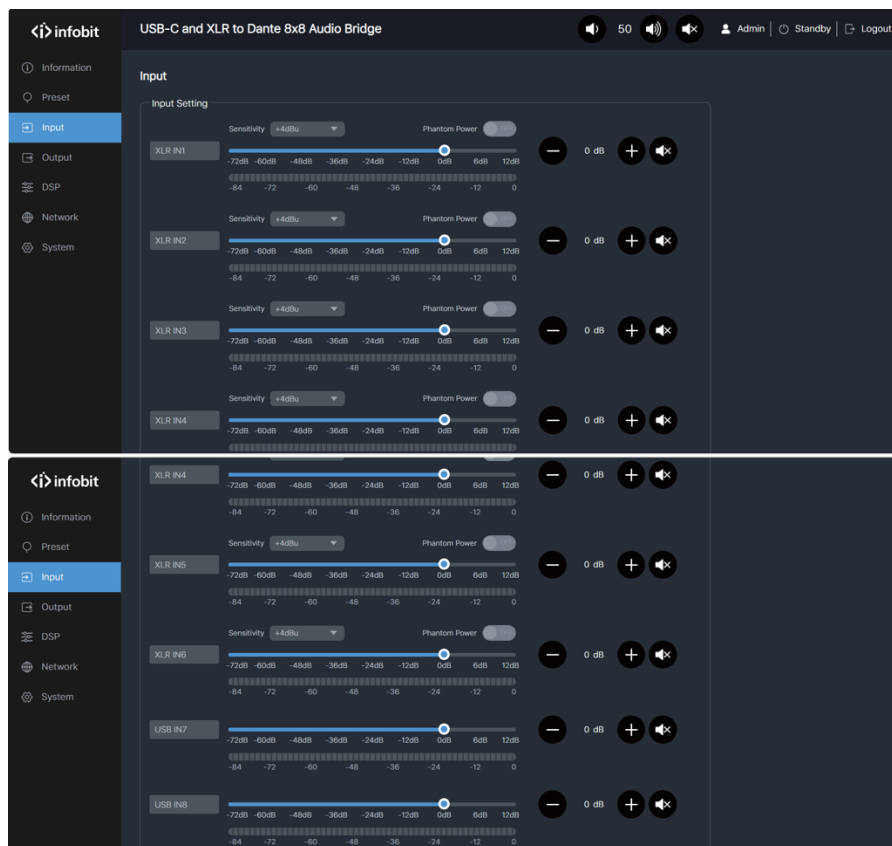
Preset Name: You can name the preset scene (32 characters max).

Preset Save: Click the Save button to save the scene.

Preset Clear: Click the Clear button to clear the saved scene.

Preset Recall: Click the Recall button to recall the saved scene.

6.4 INPUT



XLR IN 1/2/3/4/5/6: You can respectively set the volume or mute/unmute the input audio for XLR IN 1/2/3/4/5/6.

USB IN 7/8: You can respectively set the volume or mute/unmute the input audio for USB IN 7/8.

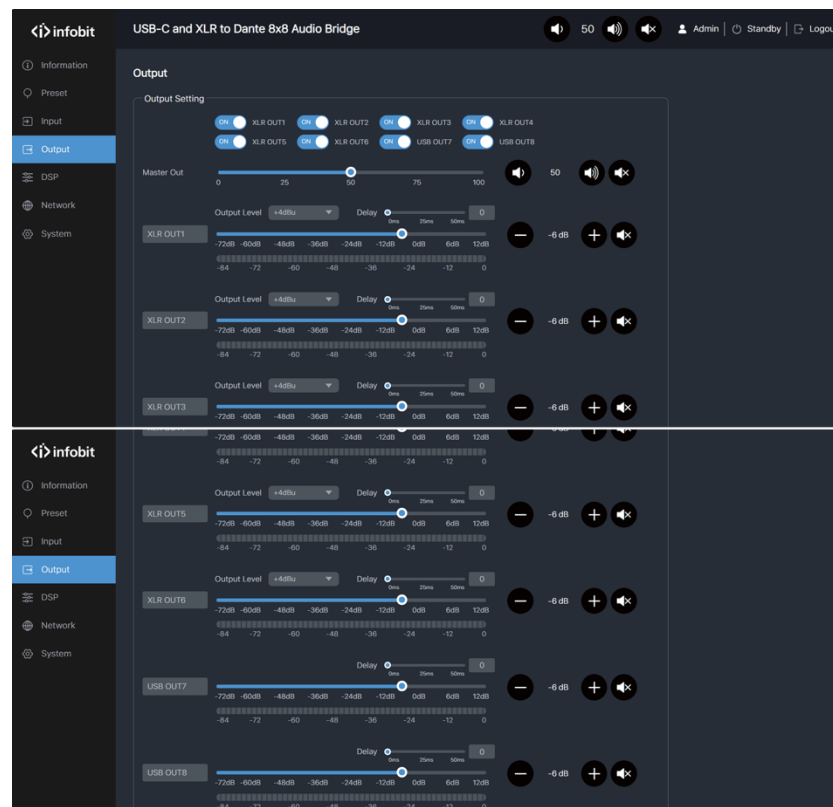
Note:

- The name of the input channel “XLR IN 1/2/3/4/5/6” or “USB IN 7/8” can be modified as required (32 characters max).
- The VU meter displays the real-time audio input level of each audio input channel.

Sensitivity: Click the drop-down list to respectively select the sensitivity value (+24dBu/+14dBu/+4dBu/0dBV/-18dBV/-35dBV) for XLR IN 1/2/3/4/5/6.

Phantom Power: Click the Phantom Power switch to respectively turn on/off the phantom power for XLR IN 1/2/3/4/5/6. When the Phantom Power switch is turned on, the XLR IN 1/2/3/4/5/6 port on the rear panel of the audio bridge can supply power to the connected MIC.

6.5 OUTPUT



Master Out: Set the audio volume or mute/unmute the audio for Master Out when turning on the switches of XLR OUT 1~6 and USB OUT 7~8. Besides, you can turn

on/off the switch to respectively set the output volume or mute/unmute the corresponding output audio.

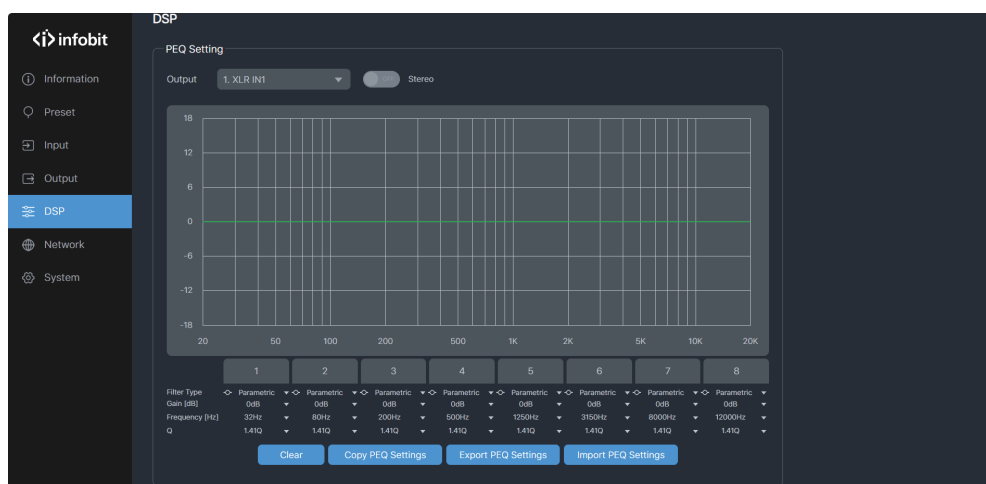
XLR OUT 1/2/3/4/5/6: Click the drop-down list to respectively select the output level (+20dBu/+14dBu/+4dBu/0dBV/-18dBV) for XLR OUT 1/2/3/4/5/6. In addition, you can respectively set the delay, increase/decrease the audio or mute/unmute the audio.

USB OUT 7/8: You can respectively set the delay, volume or mute/unmute the output audio for USB IN 7/8.

Note:

- The name of the output channel “XLR OUT 1/2/3/4/5/6” or “USB OUT 7/8” can be modified as required (32 characters max).
- The VU meter displays the real-time audio output level of each audio output channel.

6.6 DSP



Output: Click the drop-down list to select the input/output channel (XLR IN 1/2/3/4/5/6, USB IN 7/8, XLR OUT 1/2/3/4/5/6 or USB OUT 7/8).

Stereo: Click the switch to turn on/off the stereo mode.

1/2/3/4/5/6/7/8: 8 band buttons of PEQ. Blue grid indicates that the corresponding band is selected, and then you can set the parameters for it as following.

Filter Type: Click the drop-down icon, then select the filter type (Parametric/ Lowpass/ Highpass/ Low Shelf/ High Shelf).

Gain [dB]: Click the drop-down icon, then drag the slider to set the gain value.

Frequency [Hz]: Click the drop-down icon, then drag the slider to set the frequency.

Q: Click the drop-down icon, then drag the slider to set the Q value.

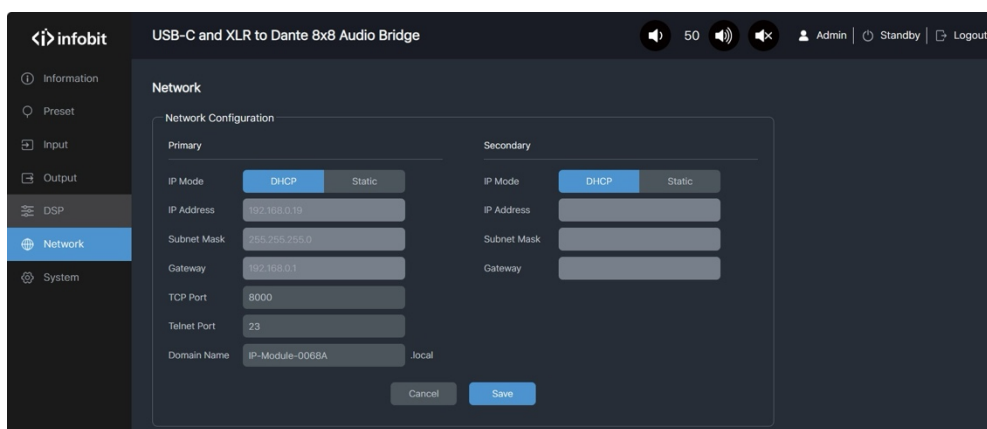
Clear: Click the button to clear the settings.

Copy PEQ Settings: Click the button to copy PEQ settings to XLR IN 1/2/3/4/5/6, USB IN 7/8, XLR OUT 1/2/3/4/5/6 or USB OUT 7/8.

Export PEQ Settings: Click the button to export PEQ settings.

Import PEQ Settings: Click the button to import PEQ settings.

6.7 NETWORK



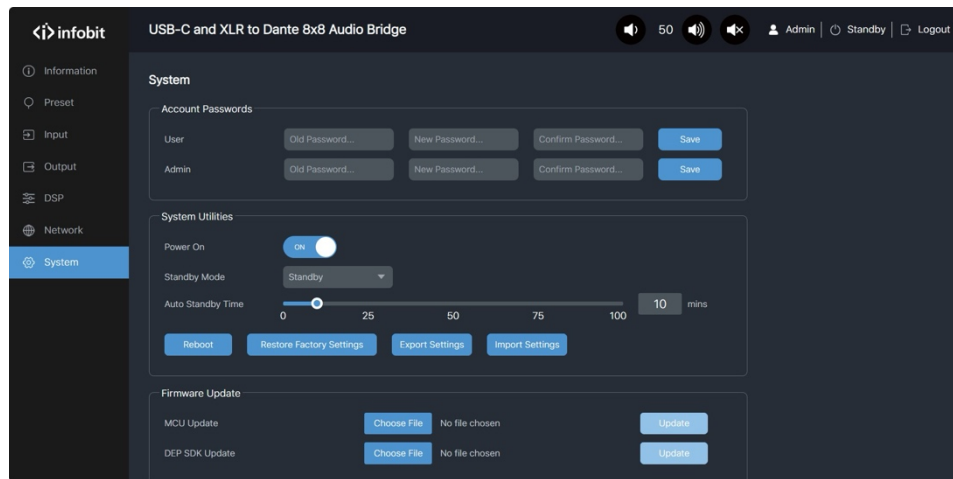
Network Configuration: Select to set the IP Mode (DHCP/Static) for the primary/secondary network. When Static is selected, you can manually set the IP Address, Subnet Mask and Gateway as required, then click “Save” to take effect. When DHCP is selected, the system will search and fill the IP address with the one assigned by the router automatically.

In addition, you can set the TCP Port, Telnet Port and Domain Name of the primary network.

Note: The Domain Name displayed as the IP Hostname (for example: “IP-Module-0068A.local”) can be used to log in to the Dante® Web GUI. The Domain Name “IP-Module-XXXXX.local” is variable for different machines and can be modified (32 characters max).

After setting up, click “**Save**” to take effect, or you can click “Cancel” to cancel the settings.

6.8 STSTEM



Account Passwords: You can modify the login password for User and Admin. After setting up, click “Save” to take effect.

System Utilities

Power On: Click the switch to power on/off the audio bridge.

Standby Mode: Click the drop-down list to select the standby/sleep mode.

Auto Standby Time: Drag the slider or directly enter the value to set the auto standby time.

Note: When the standby time is set to “0”, the auto standby function is turned off.

Reboot: Click this button to reboot the audio bridge.

Restore Factory Settings: Click this button to restore the audio bridge to factory settings.

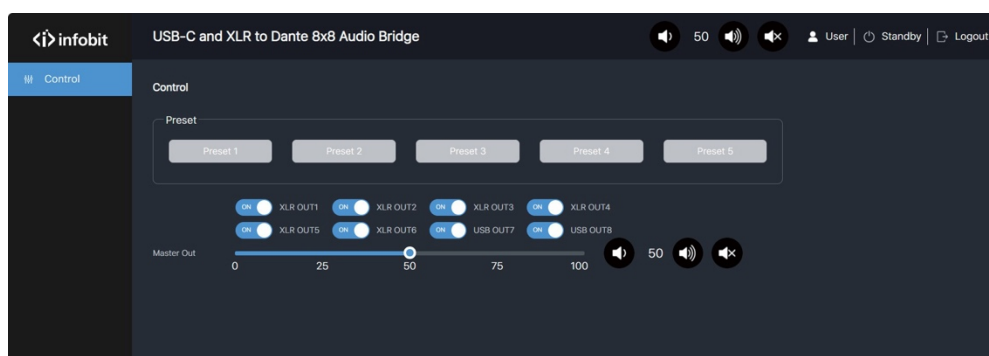
Export Settings: Click this button to export configuration files.

Import Settings: Click this button to import configuration files.

Firmware Update: You can update the firmware. Click “Choose File” to select the update file, then click “Update” to start update. When the progress bar reaches 100%, the update is complete.

In the Login interface, select the username “**User**” and input the password “**1234**”, then click the “**LOGIN**” button to enter the Control page.

6.9 USER



You can do the following operations on the User page:

Preset: Recall the preset application scenes.

Master Out: Set the audio volume or mute/unmute the audio for Master Out when turning on the switches of XLR OUT 1~6 and USB OUT 7~8. Besides, you can turn on/off the switch to respectively set the output volume or mute/unmute the corresponding output audio.

7. API CONTROL COMMAND

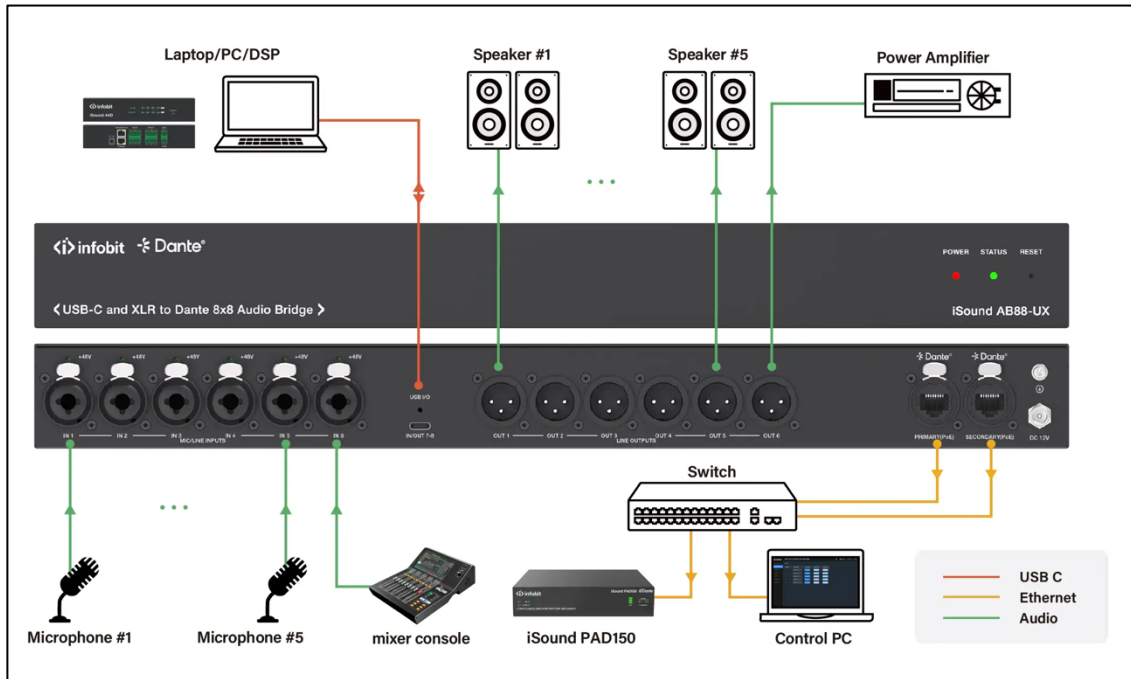
The audio bridge also supports API command control. Connect the Dante® PRIMARY(PoE)/ SECONDARY(PoE) port of the audio bridge and a PC to the same Switch and set all devices in the same LAN. Then open a Serial Command tool on PC to send ASCII commands to control the audio bridge.

Scan below QR code to visit the website and download the ASCII command list.

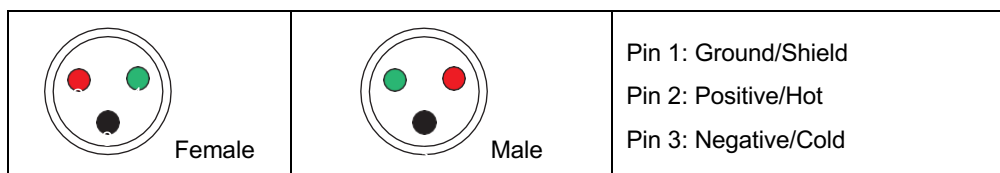


Scan to visit iSound AB88-UX website

8. DIAGRAM



Note: Please pay attention to the XLR connector pinouts when connecting XLR audio input/output devices.



9. TRADEMARKS

Dante® is registered trademark of **Audinate Pty Ltd**. All other trademarks are the property of their respective owners.